



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,885	06/08/2007	Mamoru Mitsuishi	062670	6768
38834	7590	03/03/2010	EXAMINER	
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP			DAULT, RICHARD DOUGLAS	
1250 CONNECTICUT AVENUE, NW				
SUITE 700			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20036			3734	
			NOTIFICATION DATE	DELIVERY MODE
			03/03/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/582,885	MITSUISHI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	RICHARD DAULT	3734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 03 December 2009.

2a) This action is **FINAL**.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 2-7 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 2-7 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/10/2009</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____ .

## **DETAILED ACTION**

### ***Claim Objections***

Claim 2 is objected to because of the following informalities: In the last line of claim 2, “in pair” should be – in pairs --. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 2-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagase et al. (2003/0158576).

3. As to claim 2, Nagase discloses a manipulator with multiple degrees of freedom for surgery driven by a driving means, comprising a pair of gripping members (12, 14 of figure 2), a first axis that connects both the gripping members rotatably (page 3, paragraph 70, line 8) (rotate and close about a longitudinal axis) (figures 2-4), a second axis existing (axis established by pivotable shaft, 9) on an imaginary plane substantially perpendicular to the first axis, a first link mechanism (series of links connecting features 5 to 14) for converting a drive power of the driving means to a rotary motion of one gripping member around the first axis, a second link mechanism (series of links connecting features 8 to 12) for converting a drive power of the drive means to a rotary motion of the other gripping member around the first axis and a third link mechanism (series of links connecting features 6 and 7 to 12a) (paragraph 69, lines 9-11 and paragraph 72) for converting a drive power of the driving means to a rotary motion of both the

gripping members around the second axis, wherein each of the link mechanisms is a mechanism in which a plurality of rigid links are connected in pairs.

4. As to claim 3, Nagase discloses a manipulator with multiple degrees of freedom according to claim 2 further comprising a first supporting body (4) for supporting the gripping members with the first axis and a second supporting body (61) (backbone) for supporting the first supporting body with the second axis.

5. As to claim 4, Nagase discloses a manipulator with multiple degrees of freedom according to claim 3 wherein each of the first and second link mechanisms comprises a first link supported slidably by the first supporting body, a second link supported slidably by the second supporting body and a third link for connecting between the first link and the second link, the links of the first mechanism consisting of features 5 (first link), 18 (second link) and 16 (third link) and the links of the second mechanism consisting of features 8 (first link), 11 (second link) and 10 (third link).

6. As to claims 5 and 6, Nagase discloses a manipulator with multiple degrees of freedom according to claim 4 wherein an axial line of the second axis and the third link are perpendicular to each other when the first link, the second link and the third link are arranged in line, each feature possessing a number of axial lines, and possessing axial lines perpendicular to each other, the manipulator also possessing a rotation range of the gripping member that is predetermined and the first link, the second link and the third links sliding with a state in which they are arranged in line, the axial line of the second axis and the third link are always perpendicular to each other in the rotation range (page 4, paragraph 77) (driving rods slide back and forth moving attached features in a linear, sliding manner).

7. As to claim 7, Nagase discloses a manipulator with multiple degrees of freedom according to any one of claims 3 to 6 wherein the third link mechanism comprises a fourth link supported slidably by the second supporting body (5 or 6) a fifth link that is fixed to the first supporting body (22) (fixed through a series of attachments) and rotatable around the second axis and a sixth link for connecting between the fourth link and the fifth link (21).

***Response to Arguments***

8. Applicant's arguments with respect to claims 2-7 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD DAULT whose telephone number is (571)270-1482. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Todd Manahan can be reached on 571-272-4713. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. D./  
Examiner, Art Unit 3734

/Todd E Manahan/  
Supervisory Patent Examiner, Art Unit 3734